DRILL HOLES

BORDER REVs DATEs June 1, 2004

DRILL HOLES

DRILL HOLES

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with street lighting, interconnect, video interface, and Westbound Pre-emption Phase at the intersection of MD 450 (Annapolis Rd) and Trinity Dr / Moylan Dr in Prince George's County. The existig pedestrian signals shall be replaced with Countdown pedestrian signals with accessible pushbuttons. Additionally, the existing traffic signals shall have their lenses replaced by LED lenses and cabinet relocated due to Noise Wall MD 450 (Annapolis Rd) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the MD 450 (Annapolis Rd) approaches running concurrently. The Exclusive/Permissive left turn phases for both both approaches of MD 450 (Annapolis Rd) shall remain in operation along with WB pre-emption. The pedestrian phase across the west leg of MD 450 (Annapolis Rd) shall now be a Countdown pedestrian phase with accessible pushbutton actuation. The pedestrian phases across the Trinity Dr / Moylan Dr approaches shall now be Countdown pedestrian phases with accessible pushbuttons on recall. The Trinity Dr / Moylan Dr approaches shall also continue to run concurrently.

2. A full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

3. SHA signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the SHA Signal Shop for testing and programming.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work. The Contractor shall notify Mr. Robert Snyder of SHA at (410) 787-7631 for the phone drop line relocation. The Contractor is to notify Mr. Snyder with the nearest street address, ZIP Code and phone number.

3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

4. APS will function as follows:

TO CROSS MOYLAN DRIVE (North Leg)

a. When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message " Wait to cross Moylan at Annapolis."

b. When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

TO CROSS TRINITY DRIVE (South Leg)

a. When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message " Wait to cross Trinity at Annapolis."

b. When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

TO CROSS MD 450 (ANNAPOLIS RD (West Leg)

a. When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message " Wait to cross Annapolis Road at Moylan and Trinity."

b. When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #3 (Prince George's County) are as follows:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: (301) 513-7318

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7676

The power company representative is:

Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
410-850-4620

EQIIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
900000	TRAFFIC SIGNAL CABINET - NEMA SIZE "6" BASE MOUNT.	1 EA
973023	SHEET ALUMINUM SIGNS (GROUND MOUNTED)	14 SF
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS CROSS MOYLAN DRIVE".)	1 EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS CROSS TRINITY DRIVE".)	1 EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS	1 EA
	CROSS TRINITY DRIVE".) S1-1 "SCHOOL" sign, (36" x 36")	1 EA
	W16-7p(L) ("ARROW") 24" x 12"	1 EA

EQIIPMENT LIST (CONT.)

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
973023	SHEET ALUMINUM SIGNS (OVERHEAD)	35 SF
	"ASSOCIATED SHIELD ASSEMBLY" 30"x 51" (WEST/ MD 450/ RIGHT ARROW"	1 EA
	"ASSOCIATED SHIELD ASSEMBLY" 48"x 75" (EAST/ MD 450/ LEFT ARROW"	1 EA

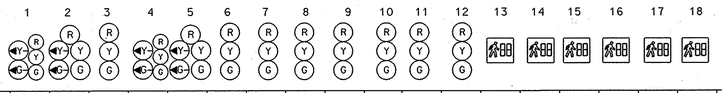
B. EQUIPMENT TO BE SUPPLIED AND / OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
114280	REMOVAL OF EXISTING PAVEMENT MARKINGS - ANY WIDTH	520 LF
120500	MAINTENANCE OF TRAFFIC	1 LS
201032	CLASS 2 EXCAVATION	1 CY
203030	TEST PIT EXCAVATION	6 CY
585621	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	570 LF
585625	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	50 LF
634300	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH	185 LF
655105	5 INCH CONCRETE SIDEWALK	1350 LF
655120	DETECTABLE WARNING SURFACE FOR CURB RAMPS	70 SF
800000A	REMOVE AND DISPOSE EXISTING EQUIPMENT.	1 EA
800000A	LED MODULES (12" AND 8" LENSES)	44 LS
800000A	16" COUNTDOWN PEDESTRIAN SIGNAL HEAD	6 EA
800000A	AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGN	6 EA
800000A	2-WIRE CONTROL UNIT	1 EA
800000A	RELOCATE VIDEO DETECTION CAMERA	2 EA
801004	CONCRETE FOR SIGNAL FOUNDATION	3.7 CY
801104	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	16 LF
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	100 LF
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	30 LF
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	85 LF
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	15 LF
807202	METERED SERVICE PEDESTAL	1 EA
810010	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN	55 LF
812107	ADJUST WATER VALVE BOX	1 EA
813014	INSTALL GROUND MOUNTED SIGN	17 SF
813015	INSTALL OVERHEAD SIGN	35 SF
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
818004	10 FOOT BREAKAWAY PEDESTAL POLE	6 EA
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	5 EA
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	730 LF
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	760 LF
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	380 LF
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	1 EA

C. EQUIPMENT TO BE REMOVED

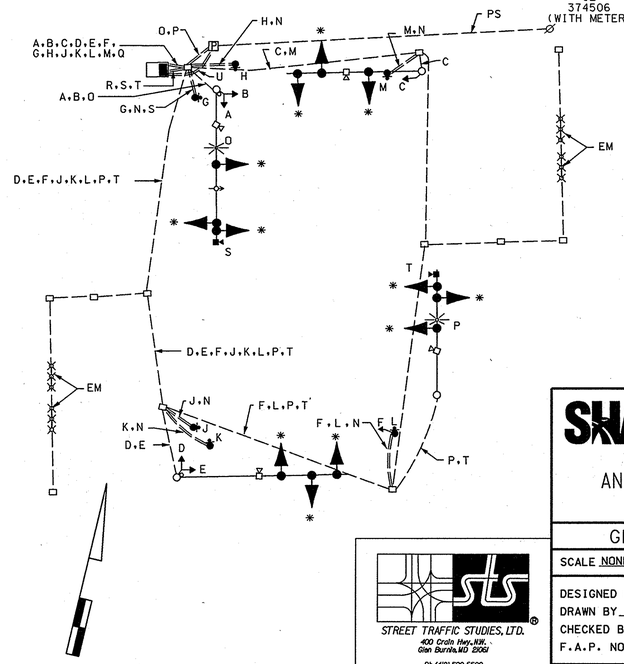
THE CONTRACTOR SHALL CONTACT MR. ED RODENHIZER TO RETURN THE EXISTING CONTROLLER TO SIGNAL SHOP AND ALL OTHER MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																			
PHASE 1 & 6	◄G-/G	◄G-/G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	
PHASE 2 & 5	R	R	R	◄G-/G	◄G-/G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	
2 & 5 CHANGE	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	
PED CLEAR / COUNTDOWN	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	
PHASE 4 & 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK	
PED CLEAR / COUNTDOWN	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	
4 & 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	
PRE EMPT 1	R	R	R	G	G	G	R	R	R	R	R	R	WK	DW	DW	DW	DW	DW	
PRE EMPT 1 CHANGE	R	R	R	G	G	G	R	R	R	R	R	R	WK	DW	DW	DW	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	

WIRING DIAGRAM



WIRING KEY

A, B, C, D, E, F } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

G, H, J, K, L, M } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

N - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

O, P } 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)

Q - EXISTING TRAFFIC SIGNAL HEAD CABLES & GROUND WIRE SHALL BE REROUTED INTO NEW CABINET.

R - EXISTING MICROLOOP CABLES, VIDEO CABLES & OPTICOM CABLE SHALL BE REROUTED INTO NEW CABINET.

S - CONTROL CABLE (CAMERA TO CONTROLLER) 250'

T - CONTROL CABLE (CAMERA TO CONTROLLER) 500'

U - 3 (1)-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G)

EM - MICROLOOP LEAD-IN CABLE

✱ - USE EXISTING CABLE

PS - PROPOSED GROUND SERVICE TO BE MAINTAINED BY BGE

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 450 (ANNAPOLIS RD) AND TRINITY DR / MOYLAN DRIVE

BOWIE, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 3/2008 CONTRACT NO. PG7045126

DESIGNED BY JAMES ALLEN
DRAWN BY ROB CICCHINI
CHECKED BY
F.A.P. NO. N/A

COUNTY PRINCE GEORGE'S
LOGMILE 16045011.83
TIMS NO. 1725
TOD NO. N/A

TS NO. 672D | DRAWING NO. SG2 OF 2 | SHEET NO. OF

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.NW.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-5537

5452GI.dgn T-134

PLOTTED: MONDAY, APRIL 07, 2008 AT 10:55 AM
FILE: J:\DATA\1725\FROM STS 040108\5452GI.DGN